

Northwestern Division Program's Directorate Program Support Division



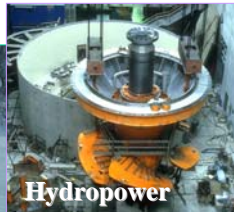
US Army Corps
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Northwestern Division

US Army Corps of Engineers:
OPERATIONS DIVISION
THE
PRE-EMINENT STEWARDS
OF
ENTRUSTED RESOURCES

CW - OPERATIONS



Fish & Wildlife
& Regulatory



Hydropower



Disaster Response



Navigation



Irrigation



Flood Control



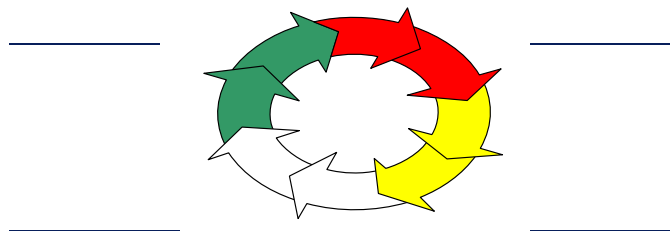
Recreation

DIRECT FUNDING

Development of MOU

NWD Guidance

Integration of Business Model



Birth of a FCRPS Business model

1. Resource Management –

Budgeting – rate case and annual refinement

Expense

Capital

Roles and Responsibilities –

Staffing and outage plans

Birth of a FCRPS Business model

2. Performance Assessment –

Tracking Results –

Forecasting

Performance targets

Monthly and annual reviews

Birth of a FCRPS Business model

3. Strategic Planning –

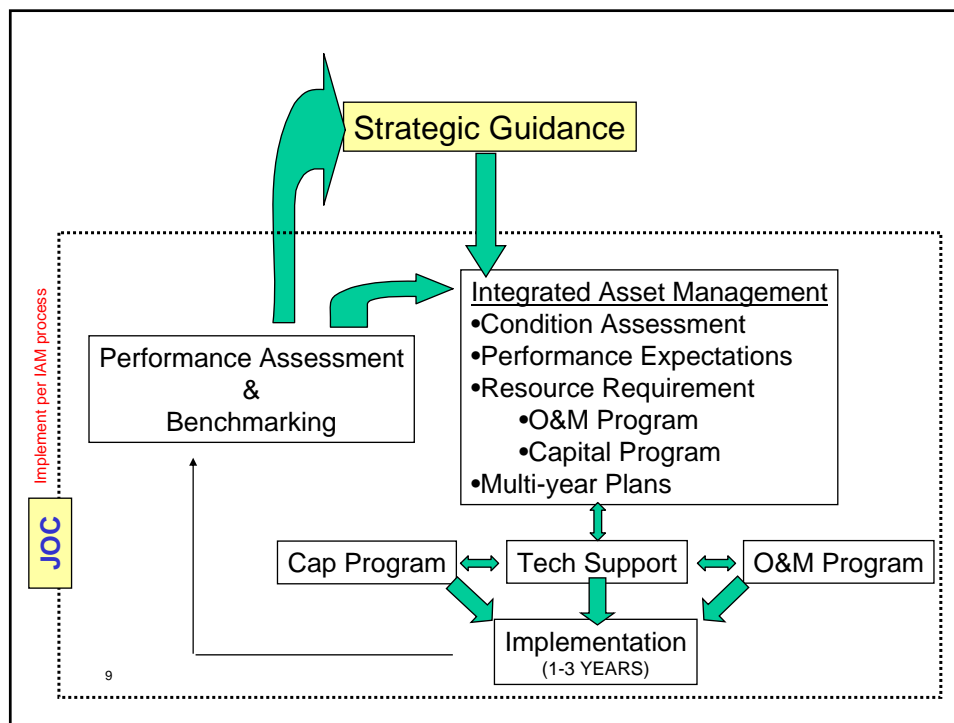
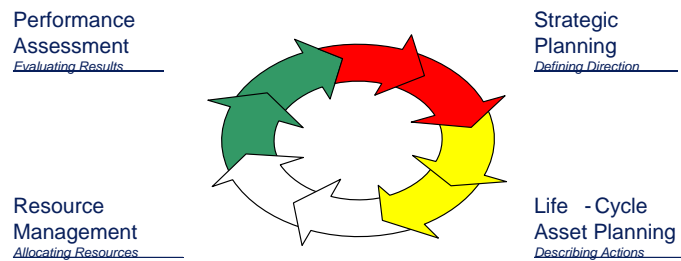
- Purpose**
- Market impacts**
- Business Goals**
- Risk levels**
- Performance Expectations**
- Integration**

Birth of a FCRPS Business model

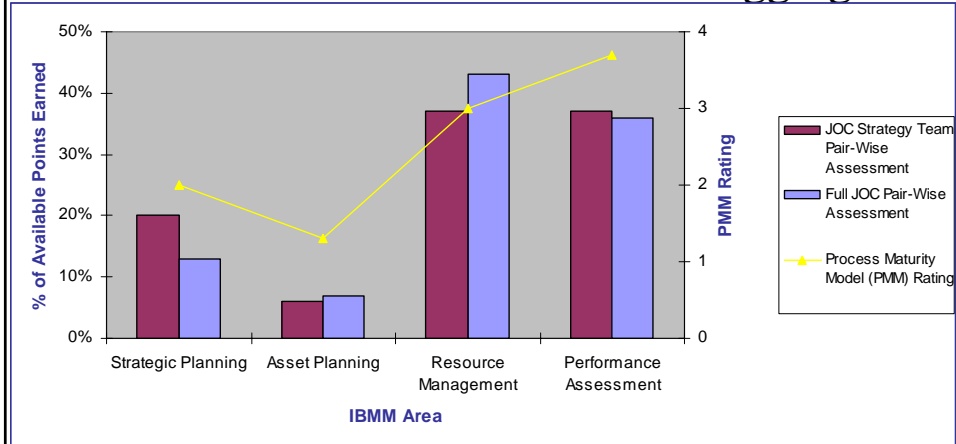
4. Asset Planning (Life-cycle)

- Strategic intent of each plant/system**
- internal/external risks**
- Capital/expense cost interrelationships**
- Condition Assessments (HYDROAMP)**
- Resource expectations – Rate Case**
- Increase rigor on accounting for benefit**
- Purchasing aggregated to ensure standardization**

Integrated Business Management Model

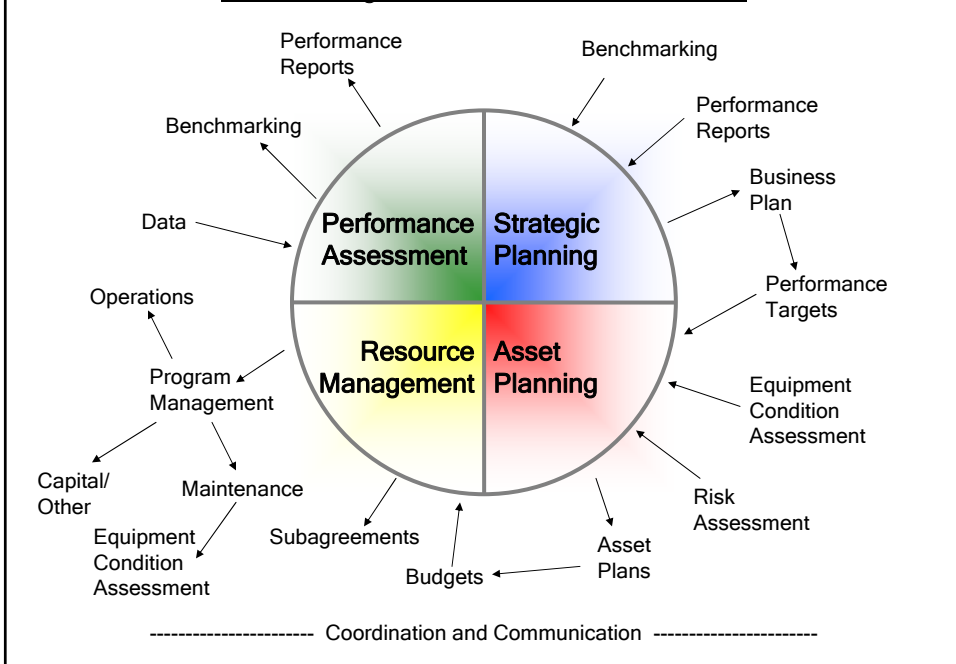


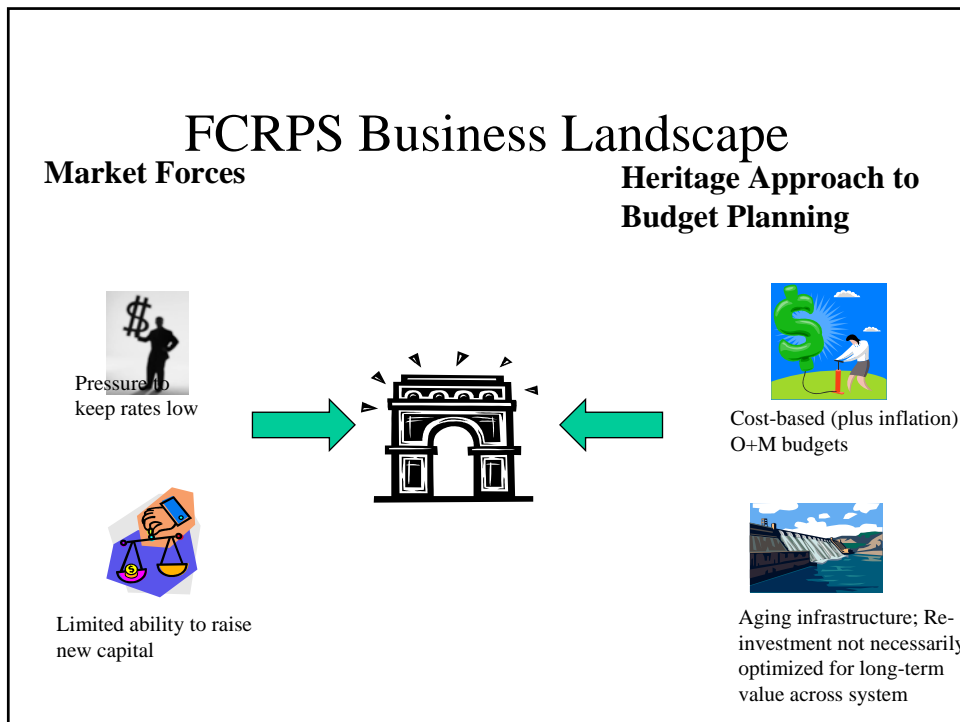
Current Situation – Asset Planning Perceived and Assessed to be Lagging



[Pair-wise assessment is a prioritization technique used in group settings.](#)

Asset Management Processes and Products





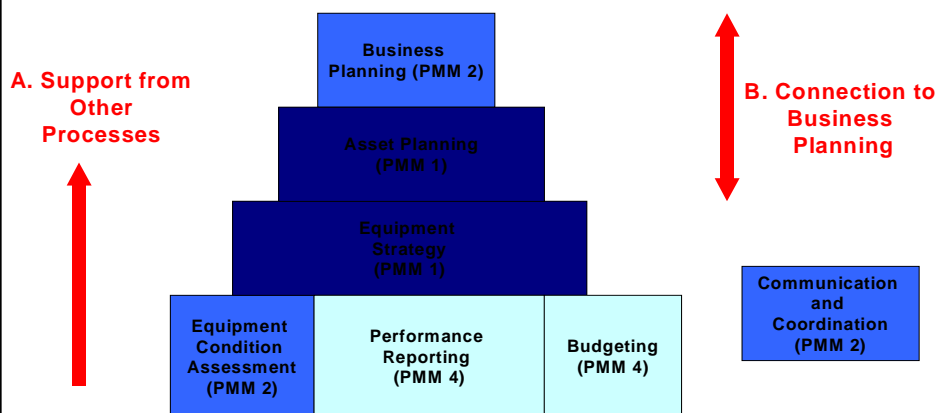
Current Situation

- Long term system health depends on Asset Planning, yet it is at a nascent stage
 - There is no ongoing, deliberate alignment of strategies related to power generation across the FCRPS agencies
 - To date, the long term, life-cycle view of Asset Planning has been out-weighted by focus on short-term spending
 - Conceptual link between [Asset Plans](#) and [Business Planning](#) does not exist outside the Strategy team of the JOC – hence, Asset Planning is not well understood or valued
 - At no point in the budget or capital approval processes are equipment risk, financial factors, power and non-power missions simultaneously traded-off across plants, districts, areas, agencies or lines of business – and the value of doing so is not yet universally understood

Risk of Current Situation

- Weak understanding of an asset's long-term value to the region results in poor presentation of priorities, resulting in short-term decision making that can restrict future options
- Lack of system-wide view results in poor understanding of priorities and sub-optimization of spending across plants, districts, areas, or lines of business
- Short-term cash focus moves spending requirements into future years creating a bow-wave effect
- Lack of a life-cycle view results in failure to achieve anticipated life and benefit of the asset, and may result in higher O+M costs and reactive capital outlays – ultimately compromising ability to meet long-term obligations

Asset Planning is Missing Foundational Support From Other Processes



Benefits of Improving Asset Planning

- Benefits directly relate to the [FCRPS Hydro Strategy Map](#)

FCRPS Stakeholder View	Benefits of Asset Planning
Reliable power	<i>Avoid mortgaging the future</i> Ensure long-term intent and needs of each plant are supported by appropriate funding, and equipment risk is factored in to decision-making
Low cost power	<i>Support rate case with clarity</i> Optimize spending (\$204M O+M, \$109M capital) against explicit criteria and long-term intent of plants, and equip to answer questions from stakeholders, including customers
Trusted stewardship	<i>Optimize decisions in a "mixed-currency" environment</i> Ensure spending criteria to accommodate non-power missions are clear and visibly support conscious tradeoffs

A. Support from Other Processes – [Equipment Strategy](#) and its Dependents

Equipment Strategy Leading Practice

- Building on a base of Reliability Centered Maintenance, utilities move to Equipment Condition management. This requires that a status and strategy exist for all major equipment, and an inventory of this data is maintained. The equipment strategy then drives maintenance and replacement plans.

Current Situation	Recommendations	Target Situation - 2005
<p>There is no three agency process for establishing Equipment Strategies, and awareness of this area is low</p> <p>While prerequisite information is increasingly being generated via Equipment Condition Assessments (HydroAmp) and Maximo, a concerted effort will be required to develop this into Equipment Strategies</p>	<p>Create clear definitions and a template for Equipment Strategy. Map current information from Strategic Plans, HydroAmp, and Maximo into the template.</p> <p>Create an efficient process, enabled by appropriate tools, to move this data into the template. The tools and data model should facilitate broad access to serve varying interests with different views of the data, for root-cause analysis (RCA), budget planning, spending decision-making, and governance.</p> <p>Pilot Equipment strategy creation with 4-5 plants using the above tools (note: the primary purpose of this is to gain experience creating the strategy. The benefits of this will not entirely be realized until the entire asset base is being considered together).</p>	<p>Equipment Strategies in place for 4-5 plants, with systems and processes in place to maintain these.</p>

B. Connection to Business Planning – “Branding” Asset Planning

Current Situation	Recommendations	Target Situation - 2005
<p>Connection between Asset Planning and Business Planning does not exist outside the JOC</p> <p>Asset Plans will not be instituted <i>to effect</i> until there is a strong appreciation of their value at a BPA executive level and connection to Business Planning</p> <p>To date, the objectives of Asset Planning have been out-weighted by short-term expense focus</p> <p>PBL and FCRPS Balanced Scorecards have many elements that would be strongly furthered by Asset Planning</p> <p>At no point in the capital approval process are equipment risk, financial factors, and non-power missions simultaneously traded-off</p> <p>There is no ongoing, deliberate alignment of strategies related to power generation across FCRPS agencies</p>	<p>Create simple, clear, consistent terminology around Asset Plans</p> <p>Create and communicate a map of targets between BSCs and Pls, showing areas Asset Planning impacts</p> <p>Create an executive communication plan, including presentations and informal communications. Link this very directly to current BSC targets</p> <p>Create a template for an Asset Plan and complete for the same 4-5 plants where Equipment Strategy is piloted</p> <p>Update decision-support system for CWG/CIP to provide varied stakeholder-specific views and enable sensitivity analysis. Populate this with data from the 4-5 Asset Plan pilot plants and use to demonstrate Asset Planning concepts. Incorporate O+M into analysis if / as resources permit.</p> <p>Build a long-term plan to create a “closed loop” process between Asset Planning, Performance Reporting, and budgets.</p>	<p>Executive commitment to using Asset Plans as a core input to Business Planning</p> <p>Awareness, comfort, and skills with: integrating disparate forms of risk (equipment, financial, etc.) in budget and spending analyses; making tradeoffs using unlike currencies (power, fish, etc.)</p> <p>Communication plans and tools in place to support above</p>

Other Leading Practice Improvements

Communication/Coordination – Link communication to Performance Targets

Equipment Condition Assessments – Link equipment condition to maintenance plan

Performance Reporting – Link to continuous improvement gaps and analysis

Budget Planning – Link to Asset Plans

Capital Budgeting – Link holistically to Expense via Asset Plans

Expense Budgeting – Link to Condition Assessments, corrective maintenance forecasts

Performance Measures – Link to long-term **Value** of assets

Maintenance Management – Linked to Equipment Strategy in a closed loop process